Number	
US-PGPUB; EPO; JPO; DERWENT USPAT; US-PGPUB; EPO; JPO; DERWENT US-PGPUB; EPO; JPO; DERWENT US-PGPUB; US-PGPUB; EPO; JPO; DERWENT US-PGPUB; EPO; JPO; DERWE	
2 728794 rectangular EPO; JPO; DERWENT USPAT; US	
DERWENT USPAT;	
2	
16:30 US-PGPUB; EPO; JPO; DERWENT USPAT; U	
Section Sect	
Second	
Second	
US-PGPUB; EPO; JPO; DERWENT USPAT; USPA	
### BPO; JPO; DERWENT 1028167 Cross with section USPAT; USP	
1028167 cross with section DERWENT USPAT; USPAT	
Second S	
S-PGPUB; DERWENT US-PGPUB; DERWENT DERWENT US-PGPUB; DERWENT DERWENT US-PGPUB; DERWENT	
Sample S	
Sample S	
and (cross with section) and (cross with section) US-PGPUB; EPO; JPO; DERWENT USPAT; And (cross with section)) and (266/\$.ccls. or 75/\$.ccls.) EPO; JPO; DERWENT USPAT; US-PGPUB; EPO; JPO; DERWENT USPAT; EPO; JPO;	
and (cross with section) S-PGPUB; EPO; JPO; DERWENT USPAT; US-PGPUB; EPO; JPO; USPAT; US-PGPUB; EPO; JPO; USPAT; US-PGPUB; EPO; JPO; USPAT; USPAT; US-PGPUB; EPO; JPO; USPAT;	!
EPO; JPO; DERWENT USPAT; 2003/03/15 US-PGPUB; EPO; JPO; DERWENT USPAT; 2003/03/15 US-PGPUB; EPO; JPO; DERWENT USPAT; 2003/03/15 US-PGPUB; 16:33 EPO; JPO; DERWENT USPAT; 2003/03/15 US-PGPUB; EPO; JPO; DERWENT USPAT; 2003/03/15 US-PGPUB; EPO; JPO; DERWENT USPAT; 2003/03/15 US-PGPUB; EPO; JPO; DERWENT USPAT; USP	
6 26023 266/\$.ccls. USPAT; US-PGPUB; EPO; JPO; DERWENT USPAT; US-PGPUB; US-PGPUB; US-PGPUB; US-PGPUB; US-PGPUB; US-PGPUB; EPO; JPO; DERWENT USPAT; USPAT; USPAT; USPAT; USPAT; USPAT; USPAT; USPAT; USPAT; US-PGPUB; EPO; JPO; DERWENT USPAT; US-PGPUB; EPO; JPO; DERWENT USPAT; US	
6 26023 266/\$.ccls. USPAT; US-PGPUB; EPO; JPO; DERWENT USPAT; US-PGPUB; US-PGPUB; US-PGPUB; US-PGPUB; US-PGPUB; US-PGPUB; EPO; JPO; DERWENT USPAT; USPAT; USPAT; USPAT; USPAT; USPAT; USPAT; USPAT; USPAT; US-PGPUB; EPO; JPO; DERWENT USPAT; US-PGPUB; EPO; JPO; DERWENT USPAT; US	
Second	
7 36152 75/\$.ccls. 8 58143 266/\$.ccls. or 75/\$.ccls. 9 97 (((shaft with furnace) and rectangular) and (cross with section)) and (266/\$.ccls. or 75/\$.ccls.) DERWENT USPAT; 2003/03/15 16:33 EPO; JPO; DERWENT USPAT; 2003/03/15 16:33 EPO; JPO; DERWENT USPAT; 2003/03/15 16:33	
7 36152 75/\$.ccls. USPAT; 2003/03/15 US-PGPUB; EPO; JPO; DERWENT USPAT; US-PGPUB; 16:33 8 58143 266/\$.ccls. or 75/\$.ccls. USPAT; USPAT; US-PGPUB; EPO; JPO; DERWENT USPAT; US-PGPUB; EPO; JPO; DERWENT USPAT; and (cross with section)) and USPAT; US-PGPUB; EPO; JPO; USPAT; USPAT	
US-PGPUB; 16:33 EPO; JPO; DERWENT USPAT; US-PGPUB; 16:33 16:33 9 97 (((shaft with furnace) and rectangular) and (cross with section)) and (266/\$.ccls. or 75/\$.ccls.) US-PGPUB; 16:33 EPO; JPO; DERWENT USPAT;	
8 58143 266/\$.ccls. or 75/\$.ccls.	
8 58143 266/\$.ccls. or 75/\$.ccls. DERWENT USPAT; 2003/03/15 16:33 EPO; JPO; DERWENT USPAT; 2003/03/15 16:33 EPO; JPO; DERWENT USPAT; 2003/03/15 and (cross with section)) and USPAT; USPAT; 2003/03/15 16:33 (266/\$.ccls. or 75/\$.ccls.)	
8 58143 266/\$.ccls. or 75/\$.ccls. USPAT; US-PGPUB; EPO; JPO; DERWENT USPAT; USPAT; USPAT; US-PGPUB; EPO; JPO; DERWENT USPAT; USP	
9 97 (((shaft with furnace) and rectangular) US-PGPUB; EPO; JPO; DERWENT USPAT; 2003/03/15 and (cross with section)) and US-PGPUB; 16:33 (266/\$.ccls. or 75/\$.ccls.) EPO; JPO;	
9 97 (((shaft with furnace) and rectangular) USPAT; 2003/03/15 and (cross with section)) and US-PGPUB; 16:33 (266/\$.ccls. or 75/\$.ccls.) EPO; JPO;	
9 97 (((shaft with furnace) and rectangular) USPAT; 2003/03/15 and (cross with section)) and US-PGPUB; 16:33 (266/\$.ccls. or 75/\$.ccls.) EPO; JPO;	
9 97 (((shaft with furnace) and rectangular) USPAT; 2003/03/15 and (cross with section)) and US-PGPUB; 16:33 (266/\$.ccls. or 75/\$.ccls.) EPO; JPO;	
and (cross with section)) and US-PGPUB; 16:33 (266/\$.ccls. or 75/\$.ccls.) EPO; JPO;	
(266/\$.ccls. or 75/\$.ccls.) EPO; JPO;	
10	
US-PGPUB; 16:34	
EPO; JPO;	
US-PGPUB; 16:34 EPO; JPO;	
DERWENT	
290655 (metal with oxide) or (iron with ore) USPAT; 2003/03/15	
US-PGPUB; 16:34	
EPO; JPO;	
DERWENT	
13 36735 solid with fuel USPAT; 2003/03/15	
US-PGPUB; 16:35	
EPO; JPO;	
DERWENT	
14 60374 coke USPAT; 2003/03/15	
US-PGPUB; 16:35	
EPO; JPO;	
DERWENT	
15	
US-PGPUB; 16:35	
EPO; JPO;	
DERWENT	
16	
US-PGPUB; 16:36	
EPO; JPO;	
DERWENT	
17	
US-PGPUB; 16:37	
EPO; JPO;	
DERWENT	

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18	34	(((shaft with furnace) and rectangular)	USPAT;	2003/03/15
		and (cross with section)) and	US-PGPUB;	16:59
		(266/\$.ccls. or 75/\$.ccls.) and ((metal	EPO; JPO;	
		with oxide) or (iron with ore)) and	DERWENT	[
		((solid with fuel) or coke or coal)		l
19	93	l : :	USPAT;	2003/03/15
			US-PGPUB;	17:01
			EPO; JPO;	
			DERWENT	
20	2	rectangular and 75/490.ccls.	USPAT;	2003/03/15
			US-PGPUB;	17:04
			EPO; JPO;	
			DERWENT	

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PGPUB-DOCUMENT-NUMBER: 20030000343

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030000343 A1

TITLE: Equipment for distribution and feeding of charge

and fuel in shaft

furnaces of rectangular cross section

PUBLICATION-DATE: January 2, 2003

INVENTOR-INFORMATION:

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COUNTRY RULE-47

Contrucci, Marcos de Rio de Janairo BR Albuquerque US

Costa, Pedro Henrique

Carpinetti

APPL-NO: 09/ 892654

DATE FILED: June 28, 2001

INT-CL: [07], C22B001/214, C21B011/02

US-CL-PUBLISHED: 75/488, 266/197

US-CL-CURRENT: 75/488, 266/197

REFERENCE-FIGURES: 1

ABSTRACT:

The present invention refers to an equipment for feeding and distributing

charge and fuel in furnaces of rectangular cross section, comprising movable

feeding tubes to distribute along the longitudinal section and the cross

section of the furnace, both a charge comprised of self-reducing agglomerates,

ore, scrap or any other metallic material, and solid fuels of any kind.

03/15/2003, EAST Version: 1.03.0002

L Number	Hits	Search Text	DB	Time stamp
1	9882	shaft with furnace	USPAT;	2003/03/15
-			US-PGPUB;	16:30
			EPO; JPO;	
			DERWENT	
2	728794	rectangular	USPAT;	2003/03/15
			US-PGPUB;	16:30
			EPO; JPO;	
			DERWENT	
3	524	(shaft with furnace) and rectangular	USPAT;	2003/03/15
		,	US-PGPUB;	16:30
			EPO; JPO;	
			DERWENT	
4	1028167	cross with section	USPAT;	2003/03/15
			US-PGPUB;	16:31
			EPO; JPO;	
			DERWENT	
5	328	((shaft with furnace) and rectangular)	USPAT;	2003/03/15
1		and (cross with section)	US-PGPUB;	16:32
			EPO; JPO;	
		•	DERWENT	
6	26023	266/\$.ccls.	USPAT;	2003/03/15
			US-PGPUB;	16:32
			EPO; JPO;	
			DERWENT	
7	36152	75/\$.ccls.	USPAT;	2003/03/15
			US-PGPUB;	16:33
			EPO; JPO;	
			DERWENT	
8	58143	266/\$.ccls. or 75/\$.ccls.	USPAT;	2003/03/15
			US-PGPUB;	16:33
			EPO; JPO;	
			DERWENT	
9	97	(((shaft with furnace) and rectangular)	USPAT;	2003/03/15
		and (cross with section)) and	US-PGPUB;	16:33
		(266/\$.ccls. or 75/\$.ccls.)	EPO; JPO;	İ
			DERWENT	
10	277098	metal with oxide	USPAT;	2003/03/15
			US-PGPUB;	16:34
			EPO; JPO;	
	15079		DERWENT USPAT;	2003/03/15
11	15079	iron with ore	US-PGPUB;	16:34
			EPO; JPO;	10.54
			DERWENT	
12	290655	(metal with oxide) or (iron with ore)	USPAT;	2003/03/15
**	2,0000	\model with oxide, or \iion with ore,	US-PGPUB;	16:34
			EPO; JPO;	
			DERWENT	
13	36735	solid with fuel	USPAT;	2003/03/15
	50755		US-PGPUB;	16:35
	i		EPO; JPO;	
	i		DERWENT	
14	60374	coke	USPAT;	2003/03/15
			US-PGPUB;	16:35
			EPO; JPO;	
į l			DERWENT	
15	121507	coal	USPAT;	2003/03/15
1			US-PGPUB;	16:35
]			EPO; JPO;	·
			DERWENT	
16	15079	iron with ore	USPAT;	2003/03/15
1			US-PGPUB;	16:36
j			EPO; JPO;	
			DERWENT	
17	190684	(solid with fuel) or coke or coal	USPAT;	2003/03/15
	190004	, (50224 11201 1402) 02 00110 02 0011	,	
,	190004	(00224 112011 2402), 02 00110 02 00112	US-PGPUB;	16:37
	190004	(00224 112611 2402) 02 0010 02 0012	l '	16:37

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18	34	(((shaft with furnace) and rectangular)	USPAT;	2003/03/15
		and (cross with section)) and	US-PGPUB;	16:59
		(266/\$.ccls. or 75/\$.ccls.) and ((metal	EPO; JPO;	
		with oxide) or (iron with ore)) and	DERWENT	
	1	((solid with fuel) or coke or coal)		
19	93	75/490.ccls.	USPAT;	2003/03/15
		·	US-PGPUB;	17:01
1	ŀ		EPO; JPO;	
			DERWENT	
20	2	rectangular and 75/490.ccls.	USPAT;	2003/03/15
			US-PGPUB;	17:04
			EPO; JPO;	
l			DERWENT	
21	l 0	(rectangular and 75/490.ccls.) and	USPAT;	2003/03/15
		((solid with fuel) or coke or coal)	US-PGPUB;	17:05
			EPO; JPO;	1
1			DERWENT	†

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